

Remarks

In view of the above amendments and the following remarks, reconsideration of the outstanding office action is respectfully requested.

Claims 1-4, 6-8, and 10-21 have been amended. Written descriptive support for the amendment of claim 1 is found at page 1, lines 13 to 17, page 2, lines 8 to 10 and 13 to 17, and page 3, lines 3 to 5 of the specification, as well as original claims 5 and 6. Claims 5, 9, and 23-27 have been cancelled without prejudice. New claims 28 and 29 have been added. Written support for new claims 28 and 29 is found at page 4, lines 30 to 35, and page 5, lines 6 to 8. Amendments to the remaining claims correct typographical errors or antecedent basis. No new matter has been added by these amendments. No excess claim fees are due with this submission.

The rejection of claims 13-15, 16, 17, and 23-27 under 35 U.S.C. § 112, 2nd para., as being indefinite is respectfully traversed in view of the above amendments.

The rejection of claims 1-13, 16-19, and 22 under 35 U.S.C. § 102(b) as being anticipated by AU-11686/95 to Werle et al. ("Werle I") is respectfully traversed in view of the above amendments.

Werle I relates to an acrolein polymer, to a process for the production of this acrolein polymer, to a process for the preservation of materials using the acrolein polymer, and to a biocidal agent which contains the acrolein polymer. The process for the production of the acrolein polymer is characterized in that acrolein and catalyst are simultaneously added to a reaction medium in a vessel in such a manner that the temperature of the reaction medium does not exceed 25°C and the pH value of the reaction medium is 10 to 11, the mixture is stirred on completion of addition and the acrolein polymer separated. An aqueous sodium hydroxide solution may be used as the catalyst. The polymer may then be centrifuged, and any residual acrolein may be eliminated from the polymer by careful washing with water. To obtain an alkali-soluble polymer, however, Werle I explicitly requires that the moist product be dried in air (e.g. using a fluidized bed dryer) at final temperatures of at least 60° (see Werle I at page 3, lines 23-27). Absent this air-drying step, an alkali-soluble polymer is not obtained.

The present invention specifically claims a method of manufacturing a soluble microbiologically active and stable acrolein polymer. This method explicitly recites that "*the polymer of acrolein is not subject to heating in air at a temperature of at least 60°C before dissolving in alcohol*" (emphasis added). This is contrary to the teachings of Werle I. In fact, Werle I unequivocally recites that air drying conditions at 60°C or less will result in products that

“do not exhibit the solubilising effect due to the addition of a base.” Therefore, the rejection of Claims 1-13, 16-19, and 22 based on anticipation is improper and should be withdrawn.

The rejection of claims 14 and 15 under 35 U.S.C. 103(a) as being unpatentable over Werle I in view of AU 711548 to Werle et al., (“Werle II”) is respectfully traversed.

The teachings and deficiencies of Werle I are described above.

Werle II relates to acrolein-releasing copolymers prepared from acrolein and one or more polyhydric alcohols, characterized by release of monomeric acrolein in aqueous systems. Werle II does not overcome the above-mentioned deficiencies of Werle I. Therefore, the rejection of claims 14 and 15 for obviousness over the combination of Werle I and Werle II is improper and should be withdrawn.

The rejection of claims 20 and 21 under 35 U.S.C. 103(a) as being unpatentable over Werle I in view of WO 01/60874 to Melrose et al. (“Melrose”) is respectfully traversed in view of the above amendments.

The teachings and deficiencies of Werle I are described above.

Melrose relates to a method for the preparation of polymers derived from acrolein and including poly(2-propenal, 2-propenoic acid), where the polymers are exposed to the presence of water and an alcohol for a sufficient amount of time, preferably at elevated temperature, whereby the resulting polymers exhibit increased antimicrobial activity. However, Melrose does not overcome the above-mentioned deficiencies of Werle I. In the Examples of Melrose that were cited by the PTO, the poly(2-propenal, 2-propenoic acid) was prepared with air drying at elevated temperature (above 60°C) prior to dissolving in alcohol (*see, e.g.*, Examples 1 and 5). Accordingly, the rejection of claims 20 and 21 for obviousness over the combination of Werle I and Melrose is improper and should be withdrawn.

In view of the foregoing, it is submitted that this case is in condition for allowance and such allowance is earnestly solicited.

Respectfully submitted,

Date: November 16, 2009

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